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LOCUS 181465
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ACCESSION 181465
VERSION 181465.1 GI:3209762
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 2994)
AUTHOR Shepard,H,Michael and Wen,S,Ren.
TITLE Characterization of a novel anti-p110.sup.RB monoclonal antibody
JOURNAL Patent: US 5710255-A 2, 20-JAN-1998;
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 ORGANISM Homo sapiens
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 Eutheria; Primates; Catarrhini; Hominoidea; Homo.
 REFERENCE 1 (sites)
 AUTHORS MCGEE,T.L., YANDILL,D.W. and DRYJA,T.P.
 TITLE Structure and partial genomic sequence of the human retinoblastoma

Tue Feb 15 15:38:57 2000

us-09-026-459a-34_copy_7_2502.oli.rge

Page 1

GenCore version 4.5
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ALIGNMENTS

RESULT 1
LOCUS I05311
DEFINITION Sequence 1 from Patent EP 0259031.
ACCESSION I05311
VERSION I05311.1 GI:591083
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 4597)
AUTHORS Dryja,T.P. and Friend,S.
PAT 02-DEC-1994

TITLE Human DNA in the diagnosis of retinoblastoma
JOURNAL Patent: EP 0259031-A2 1 09-MAR-1988;
FEATURES Location/Qualifiers
source 1..4597
BASE COUNT 1489 a 842 c 812 g 1454 t
ORIGIN

Query Match 99.9%; Score 2493; DB 5; Length 4597;
Best Local Similarity 100.0%; Freq. No. 0;
Matches 2493; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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ACCESSION 181465
VERSION 181465.1 GI:3209762
KEYWORDS
SOURCE Unknown.
ORIGIN Unknown.
REFERENCE 1 (bases 1 to 2994)
AUTHORS Shepard,H.Michael and Wen,S.Fen.
TITLE Characterization of a novel anti-p110.sup.RB monoclonal antibody
JOURNAL Patent: US 5710255-A 2 20-JAN-1998;
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Location/Qualifiers
1..2994
Source /organism="unknown"
BASE COUNT 974 a 618 c 593 g 809 t
ORIGIN

Query Match 99.98; Score 2493; DB 5; Length 2994;
Best Local Similarity 100.0%; Pred. No. 0;
Matches 2493; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Page 1

GenCore version 4.5
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Run on: February 13, 2000, 11:20:43 : Search time 14294.3 Seconds

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44	122	4.8	222	10	H0MRB18EX	L41905 Homo sapien
45	119	4.7	323	10	H0MRB1D18	L49221 Homo sapien

ALIGNMENTS

RESULT 1

LOCUS I05311 4597 bp

DEFINITION Sequence 1 from Patent EP 0259031.

ACCESSION I05311

VERSION I05311.1 GI:591083

KEYWORDS

SOURCE

ORGANISM Unknown.

REFERENCE 1 (bases 1 to 4597)

AUTHORS Dryja,T.P. and Friend,S.

PAT 02-DEC-1994

TITLE Human DNA in the diagnosis of retinoblastoma
JOURNAL Patent: EP 0259031-A2 1 09-MAR-1988;
FEATURES Location/Qualifiers
source 1..4597
BASE COUNT 1489 a 842 c 812 g 1454 t
ORIGIN

Query Match 99.9%; Score 2551; DB 5; Length 4597;
Best Local Similarity 100.0%; Pred.No. 0;
Matches 2551; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1614 AGAAGCAACTGTGACAAAGAAATGATTAACATTTAAGAGATGATGATGAT 1673

QY 1443 GGAATCCCTGATGCTGCTCAAGTACCTTATTTGATCTTTTAAACATCAAGGA 1502
DB 1674 GGAATCCCTGATGCTGCTCAAGTACCTTATTTGATCTTTTAAACATCAAGGA 1733

QY 1503 CCGAAGAGCAACTGATCACTGATGATGCTGCTGCTTATCTCTCCAGAA 1562
DB 1734 CCGAAGAGCAACTGATCACTGATGATGCTGCTGCTTATCTCTCCAGAA 1793

QY 1563 TATCACACTGACAGATATGATCTTTCTGCTGTAAGATCTCCAAAGAAAGGTT 1622
DB 1794 TATCACACTGACAGATATGATCTTTCTGCTGTAAGATCTCCAAAGAAAGGTT 1853

QY 1623 AACTAGGCTGTAATTTCTACTGCAAAATGCAAGACACAAAGACCTCAGCTTCAGAC 1682
DB 1854 AACTAGGCTGTAATTTCTACTGCAAAATGCAAGACACAAAGACCTCAGCTTCAGAC 1913

QY 1683 CCGAAGCACTGAAATCTACTCTCTTACTGTTTATTAAGAAAGTATGCGCTAGC 1742
DB 1914 CCGAAGCACTGAAATCTACTCTCTTACTGTTTATTAAGAAAGTATGCGCTAGC 1973

QY 1743 CTATCTCGGCTAAATACCTTGTGAAAGCTTGTGCTGAGCACCAGAAATAGAA 1802
DB 1974 CTATCTCGGCTAAATACCTTGTGAAAGCTTGTGCTGAGCACCAGAAATAGAA 2033

QY 1803 TATCATCTGAGACCTTTTCCAGACACCTCGAGAAATGATGATGATGATGAGAG 1862
DB 2034 TATCATCTGAGACCTTTTCCAGACACCTCGAGAAATGATGATGATGATGAGAG 2093

QY 1863 GCATTTGAGCAAAATATGATGCTTCCATGATGATGATGATGATGATGATGAT 1922
DB 2094 GCATTTGAGCAAAATATGATGCTTCCATGATGATGATGATGATGATGATGAT 2153

QY 1923 CCTTAATTTCAAAATCATGATGATGATGATGATGATGATGATGATGATGATGAT 1982
DB 2154 CCTTAATTTCAAAATCATGATGATGATGATGATGATGATGATGATGATGATGAT 2213

QY 1983 ATTCAAAGCTGTTTGAATCAAAAGAGATGATGATGATGATGATGATGATGAT 2042

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DB 2214 ATTCAGAGCTTTTGTATCAAGAGAGAGATGATTCATATATATATATCTTAATCTC 2273
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DB 2274 GGTCTTCATGAGAGAGATGAGAGAGATATTTTGCAGATGCTTCCACAGAGCCCTTAC 2233
QY 2103 CTTCGACCAATACCTACATTCCTCGAAGCCCTTACAGATTCCTAGTTCAGCCCTTACG 2162
DB 2334 CTTCGACCAATACCTACATTCCTCGAAGCCCTTACAGATTCCTAGTTCAGCCCTTACG 2293
QY 2163 GATTCCTGGAGAGAGATGATATATTTTCAACCCCTGAGAGAGATATATATATTTTCAAGG 2222
DB 2394 GATTCCTGGAGAGAGATGATATATTTTCAACCCCTGAGAGAGATATATATATTTTCAAGG 2453
QY 2223 TCTGCAAGAGAGAGAGATGATATATTTTCAACCCCTGAGAGAGATATATATATTTTCAAGG 2282
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DB 2514 ATTCGAGAGCTTCTGAGAGAGATTCAGAGAGATATATATATGATATGATACAGAGAGAGAG 2573
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QY 2463 GCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 2522
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DB 2754 TAGCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 2784

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DEFINITION Sequence 2 from patent US 5710255.
ACCESSION 181465
VERSION 181465.1 GI:3209762
KEYWORDS
SOURCE
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 2994)
AUTHORS Shepard,H,Michael and Wen,S,Fen.
TITLE Characterization of a novel anti-p110.sup.BB monoclonal antibody
JOURNAL Patent: US 5710255-A 2 20-JAN-1998;
FEATURES
LOCATION/Organism:
SOURCE 1. 2994
BASE COUNT 974 a 618 c 593 g 809 t
ORIGIN

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Query Match 99.9% Score 2551; DB 5: Length 2994;
Best Local Similarity 100.0%; Pident. No. 0;
Matches 2551; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 372 GGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 431
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QY 183 TGATACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 242
DB 552 TGATACAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 611
QY 243 GTTCGACCTTCAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 302
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DB 792 ATTCGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 851
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QY 663 TTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 722
DB 1032 TTTATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1091
QY 723 TAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 782
DB 1092 TAAAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1151
QY 783 TCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 842
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DB 1452 TGTGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAGAG 1511
QY 1143 ATCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1202
DB 1512 ATCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1571
QY 1203 TGACATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 1262

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Oy	1263	TAGCGAAGTACATCTCAGAAATCTTGATCTTGGAACAGATTTCTCTTCCATGGATCTC	1322
Dh	1632	TAGCAGAATACATCTCGAAATCTTGATCTTGGAACAGATTTCTCTTCCATGGATCTC	1691
Oy	1323	GATTCGTTAATTTAAAAGCCTTGATTTTTCACAAAGTGATGGAAGTTTATCAAAAC	1382
Dh	1692	GATTCGTTAATTTAAAAGCCTTGATTTTTCACAAAGTGATGGAAGTTTATCAAAAC	1751
Oy	1443	GGAAATCCCTTGACATGGCTCTCAGATTCACCTTATTTGATCTTATTTAAACATCAAGA	1502
Dh	1812	GGAAATCCCTTGACATGGCTCTCAGATTCACCTTATTTGATCTTATTTAAACATCAAGA	1871
Oy	1503	CCGAGAGGACCAACTGATACCTTGATCTCTTGCTCTTAACTCTCTCCACGAA	1562
Dh	1712	CCGAGAGGACCAACTGATACCTTGATCTCTTGCTCTTAACTCTCTCCACGAA	1931
Oy	1563	TATTCACACGACGACGATATGATCTCTTCTCTGTAAGATCTCCAAAGAAAAAGGTTTC	1622
Dh	1932	TATTCACACGACGACGATATGATCTCTTCTCTGTAAGATCTCCAAAGAAAAAGGTTTC	1991
Oy	1623	AACCTACGGGTGTAATCTACTGCAATCGCAAGACACAGCAACCTCAGCCTCCGACAC	1682
Dh	1992	AACCTACGGGTGTAATCTACTGCAATCGCAAGACACAGCAACCTCAGCCTCCGACAC	2051
Oy	1683	CCAGAGCGCAATTAATCTACTCTCTTTCAGTGTATTAATAAAAGTGATCGCGTACAC	1742
Dh	2052	CCAGAGCGCAATTAATCTACTCTCTTTCAGTGTATTAATAAAAGTGATCGCGTACAC	2111
Oy	1743	CTATTCGGGCTAAATACACTTTTGTGAAGCCTTCTGCTGACACCCGAGATTAAGACA	1802
Dh	2112	CTATTCGGGCTAAATACACTTTTGTGAAGCCTTCTGCTGACACCCGAGATTAAGACA	2171
Oy	1803	TATCATCTGACACCTTTTCCACGACACCTCGAGAGATGATTAAGACATCAAGAGACAG	1862
Dh	2172	TATCATCTGACACCTTTTCCACGACACCTCGAGAGATGATTAAGACATCAAGAGACAG	2231
Oy	1863	GCATTGGACCAATATATGATGTCTTCATGTATGCGCATGCGAAGTGAAAGATATATA	1922
Dh	2232	GCATTGGACCAATATATGATGTCTTCATGTATGCGCATGCGAAGTGAAAGATATATA	2291
Oy	1923	CCTTAATTAATAATCATGTGTACAGCATACAGGATTTCTCATGCTGTTCCAGAGAC	1982
Dh	2292	CCTTAATTAATAATCATGTGTACAGCATACAGGATTTCTCATGCTGTTCCAGAGAC	2351
Oy	1983	ATTCAAACGCTGTTTGATCAACAAAGAGAGATATATCTATATATGATATCTATAATCTC	2042
Dh	2352	ATTCAAACGCTGTTTGATCAACAAAGAGAGATATATCTATATATGATATCTATAATCTC	2411
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Dh	2412	GGTCTTCATCAAGACACGAAAAAATAATTTTGGAGATATGCTTCCACAGGCCCCCTAC	2471
Oy	2103	CTTGTCACCAATACGTCACATCTTCGAGAGCCCTTACAGATTTCTCAGTACACCTTAAG	2162
Dh	2472	CTTGTCACCAATACGTCACATCTTCGAGAGCCCTTACAGATTTCTCAGTACACCTTAAG	2531
Oy	2163	GATTCCTGAGGGAATCTATATTCACCCCTGAAGAGTCATATAAATTTTCAGAAAG	2222
Dh	2532	GATTCCTGAGGGAATCTATATTCACCCCTGAAGAGTCATATAAATTTTCAGAAAG	2591
Oy	2223	TCTGCGAACACCAAAAATATGATCCAGATCAAGATCTTATGATTCATTTGGTGAATC	2282
Dh	2592	TCTGCGAACACCAAAAATATGATCCAGATCAAGATCTTATGATTCATTTGGTGAATC	2651
Oy	2283	ATTGCGAATCTTCTGAGAGTTTCCAGAAAATTAATCAAGTATGATTAACAGACGCTGT	2342

Db	2655	ATGCGGACTCTCTGGAAAGTTCACGAAATAATTAACAGATGTGTATGTAAACGCCACCGT	2711
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Db	2712	GCCTCAAAAGAAAGTCTGAAGAGAGCAACCCCTCTAAACACATCGAAAAAATACCGTTGA	2771
Qy	2403	TATTTGAAGTACGATGATGAGCAACATATGAAAGTAAACATCTCCAGAGAGATCGAAATTCA	2462
Db	2772	TATTTGAAGTACGATGATGAGCAACATATGAAAGTAAACATCTCCAGAGAGATCGAAATTCA	2831
Qy	2463	GCAGAAATCTGGCGAAATGACTTCTCTCTCGAAGCAGATGCAAAAACGAAAAATGATGA	2532
Db	2832	GCAGAAATCTGGCGAAATGACTTCTCTCTCGAAGCAGATGCAAAAACGAAAAATGATGA	2891
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Db	2892	TAGCATGATACCTCAACAAAGAAAGAAAGAA	2922
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LOCUS			
DEFINITION	HUMBLBLRNA	4839 bp	mRNA
ACCESSION			05-MAY-1995
KEYWORDS	Homo sapiens	retinoblastoma susceptibility protein (Rb1)	mRNA and mutations.
SOURCE	141870.1	GI:793994	
ORGANISM	retinoblastoma protein;	retinoblastoma susceptibility.	
REFERENCE	Homo sapiens	cDNA to mRNA.	
AUTHORS	Homo sapiens		
TITLE	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;		
JOURNAL	Eutheria; Primates; Catarrhini; Homiidae; Homo.		
MEDLINE	1 (sites)		
REFERENCE	McGee,T.L., Yandell,D.W. and Dryja,T.P.		
AUTHORS	Structure and partial genomic sequence of the human retinoblastoma		
TITLE	susceptibility gene		
JOURNAL	Gene 80 (1), 119-128	(1989)	
MEDLINE	90066771		
REFERENCE	2 (sites)		
AUTHORS	Hogg,A., Onadim,Z., Baird,P.N. and Cowell,J.K.		
TITLE	Detection of heterozygous mutations in the Rb1 gene in		
JOURNAL	retinoblastoma patients using single-strand conformation		
MEDLINE	polymorphism analysis and polymerase chain reaction sequencing		
REFERENCE	Oncogene 7 (7), 1445-1451	(1992)	
AUTHORS	92319557		
TITLE	3 (sites)		
JOURNAL	Onadim,Z., Hogg,A., Baird,P.N. and Cowell,J.K.		
MEDLINE	Oncogenic point mutations in exon 20 of the Rb1 gene in families		
REFERENCE	showing incomplete penetrance and mild expression of the		
AUTHORS	retinoblastoma phenotype		
TITLE	Proc. Natl. Acad. Sci. U.S.A. 89 (13), 6177-6181	(1992)	
JOURNAL	92335261		
MEDLINE	4 (sites)		
REFERENCE	Onadim,Z., Hogg,A. and Cowell,J.K.		
AUTHORS	Mechanisms of oncogenesis in patients with familial retinoblastoma		
TITLE	Br. J. Cancer 68 (5), 958-964	(1993)	
JOURNAL	94031584		
MEDLINE	5 (sites)		
REFERENCE	Hogg,A., Bai,B., Onadim,Z. and Cowell,J.K.		
AUTHORS	Molecular mechanisms of oncogenic mutations in tumors from patients		
TITLE	with bilateral and unilateral retinoblastoma		
JOURNAL	Proc. Natl. Acad. Sci. U.S.A. 90 (15), 7351-7355	(1993)	
MEDLINE	93348271		
REFERENCE	6 (sites)		
AUTHORS	Kratke,R.A., Otterson,G.A., Hogg,A., Coxon,A.B., Gerardis,J.,		
TITLE	Partial inactivation of the RB product in a family with incomplete		
JOURNAL	penetrance of familial retinoblastoma and benign retinal tumors		
MEDLINE	Oncogene 9 (5), 1321-1326	(1994)	
REFERENCE	94203660		
AUTHORS	Mutation data provided by Dr. B.L.Gallie,		
TITLE	Hospital for Sick Children		
JOURNAL	535 Univ. Ave.		
MEDLINE	Toronto ONT M5G 1X8		
COMMENT			

GenCore version 4.5
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OK nucleic - nucleic search, using sw model

Run on: February 13, 2000, 11:15:20 : Search time 14294.3 seconds

(without alignments)
556.962 Million cell updates/sec

Title: US-09-026-459a-30_COPY_7_2628

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Searched: 82193 seqs, -1518192014 residues

Database: GenEmbl:*

Word size: 0

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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2	2619	99.9	2884	5	181465	181465 Sequence 2
3	2619	99.9	4839	10	HOMRBI1RNA	M31870 Homo sapien
4	2619	99.9	4600	10	HOMRBI1RA	M31847 Homo sapien
5	2619	99.9	4294	10	HOMRBSA	M28819 Homo sapien
6	2619	99.9	4357	5	109369	109369 Sequence 1
7	2660	93.8	3322	5	118496	118496 Sequence 1
8	2460	93.8	3322	5	118497	118497 Sequence 2
9	2208	84.2	4740	10	HOMRBS	M15400 Homo sapien
10	1420	54.2	4580	5	A01444	A01444 H. sapiens D
11	338	12.9	426	11	AF043224	AF043224 Homo sapi
12	207	7.9	480	9	HOMRBS79	M19701 Human mutat
13	198	7.6	693	5	109384	109384 Sequence 17
14	198	7.6	693	9	HOMRBS15	M27858 Human retin
15	198	7.6	180388	9	HOMRREBLAS	L11910 Human retin
16	196	7.5	340	10	HOMRBI1501V	L49220 Homo sapien
17	167	6.4	555	10	HOMRBI4MU2	L41904 Homo sapien
18	165	6.3	935	5	109389	109389 Sequence 22
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24	148	5.0	717	9	HOMRBS18	L5147 Human retin
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29	145	5.5	609	5	109377	109377 Sequence 10
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39	123	4.7	570	5	109373	109373 Sequence 6
40	123	4.7	570	9	HOMRBS04	M27848 Human retin
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43	122	4.7	224	10	HOMRBI1646F	L49224 Homo sapien
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ALIGNMENTS

RESULT 1

LOCUS 105311 4597 bp

DEFINITION Sequence 1 from Patent EP 0259031.

ACCESSION 105311

VERSION 105311.1 GI:591083

KEYWORDS

SOURCE

ORGANISM Unknown.

REFERENCE 1 (bases 1 to 4597)

AUTHORS Dryja, R.P. and Friend, S.

PAT 02-DEC-1994

Tue Feb 15 15:38:52 2000

us-09-026-459a-30_copy_7_2628.oli.go.rge

Page 2

TITLE	Human DNA in the diagnosis of retinoblastoma			
JOURNAL	Patent: EP 0259031-A2 1 09-MAR-1988.			
FEATURES	location/qualifiers			
SOURCE	1.4587			
	/organism="unknown"			
BASE COUNT	1489	a	842	c
ORIGIN			812	g
				1454 t

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Query Match      99.98; Score 2619; DB 5; Length 4597;
Best Local Similarity 100.08; Pred. No. 0;
Matches 2619; Conservative 0; Mismatches 0; Indels 0; Gaps 0
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Oy	64	TTAACTGGGAGAAAGTTTCACTCTGGGAGTATGGGAGCTATATTCACAAAGAA	123
Dd	226	TTAACTGGGAGAAAGTTTCACTCTGGGAGTATGGGAGCTATATTCACAAAGAA	285
Oy	124	AAGGAACCTGGGGGAATCTGATCTTTATTGCAGCAGTTGACTACATGAGATGCTGC	183
Dd	286	AAGGAACCTGGGGGAATCTGATCTTTATTGCGAGAGTGAAGCTACATGAGATGCTGC	345
Oy	184	ACTTTTACTGAGCTACAGAAACATAGAAATCAAGTGTGCATTAATCTTTAACTTACTA	243
Dd	346	ACTTTTACTGAGCTACAGAAACATAGAAATCAAGTGTGCATTAATCTTTAACTTACTA	405
Oy	244	AAAGAAATATATACCAAGTACCAAGTTGATATGCTATGCAAGATGTGTAAAGATAT	303
Dd	406	AAAGAAATATATACCAAGTACCAAGTTGATATGCTATGCAAGATGTGTAAAGATAT	465
Oy	304	GATGATATGTTTCACTCTGACAAATTTGGAAGAGACATGTAATTTATTTGACA	363
Dd	466	GATGATATGTTTCACTCTGACAAATTTGGAAGAGACATGTAATTTATTTGACA	525
Oy	364	CACCCAGCAGTCCGATATCTACTGAAATTAATTTGATGGTGTGTAAGTTCTGG	423
Dd	526	CACCCAGCAGTCCGATATCTACTGAAATTAATTTGATGGTGTGTAAGTTCTGG	585
Oy	424	ATACATATTTATATGCTAAAGGGGAGATACCAATGGAAGATATGCTGATTTCA	483
Dd	586	ATACATATTTATATGCTAAAGGGGAGATACCAATGGAAGATATGCTGATTTCA	645
Oy	484	TTTTCAGTTAATGCTATGTCCTTGACATTTTATTAACTCTCACCTCCATCTTCTC	543
Dd	646	TTTTCAGTTAATGCTATGTCCTTGACATTTTATTAACTCTCACCTCCATCTTCTC	705
Oy	544	AAAGAACCATATTAACACAGCTGTTATACCCATTAAATGGTTACCTGGAACCCAGCA	603
Dd	606	AAAGAACCATATTAACACAGCTGTTATACCCATTAAATGGTTACCTGGAACCCAGCA	765
Oy	604	GGTCAGAACAGGAGTCACGGATAGCAAAACAACAGTAAATATACAGAAATATTGAA	663
Dd	766	GGTCAGAACAGGAGTCACGGATAGCAAAACAACAGTAAATATACAGAAATATTGAA	825
Oy	664	GTTCCGTGTAAACACATGATATGATATAGATAGAGGAGAAATTTTATTCAAAAT	723
Dd	826	GTTCCGTGTAAACACATGATATGATATAGATAGAGGAGAAATTTTATTCAAAAT	885
Oy	724	TTTATACCTTTTGAATCTCTGGAGCTGTATACATCTAAATGGAATTCAGAGTTGAA	783
Dd	886	TTTATACCTTTTGAATCTCTGGAGCTGTATACATCTAAATGGAATTCAGAGTTGAA	945
Oy	784	AATCTTCTTAACAGATAGAGAAATTTATCTTAAATTAACATCTAGATGCAGATTA	843
Dd	946	AATCTTCTTAAAGATAGAGAAATTTATCTTAAATTTAAATCTAGATGCAGATTA	1005
Oy	844	TTTTTGGATCATATAAACTCTTCAGACTGATTTATAGACAGTTTGAACACAGAGA	903
Dd	1006	TTTTTGGATCATATAAACTCTTCAGACTGATTTATAGACAGTTTGAACACAGAGA	1065

Qy	904	ACCCACAAAAAGTACCTTGATGGAAGAGGGAATGTAATTCCTCCACACATCCAGTT	963
Dp	1066	ACACACGAAAAAGTACCTTGATGGAAGAGGGAATGTAATTCCTCCACACATCCAGTT	1125
Qy	964	AAGACTGTATGAAACACTATCCAACTTAATGATGATTTTAATTCAGCAAGATCA	1023
Dp	1126	AAGACTGTATGAAACACTATCCAACTTAATGATGATTTTAATTCAGCAAGATCA	1185
Qy	1024	CCTTCAGAAAATCGATTTCTCATATTTTAACACACGACACAGTAAATCCAAAGATAT	1083
Dp	1186	CCTTCAGAAAATCGATTTCTCATATTTTAACACACGACACAGTAAATCCAAAGATAT	1245
Qy	1084	CTGAAAAGATGAAAGATATGATATCATCTTTAAAGAAATTGCTAAAGCTGGGGA	1143
Dp	1246	CTGAAAAGATGAAAGATATGATATCATCTTTAAAGAAATTGCTAAAGCTGGGGA	1305
Qy	1144	CAGGCTGTGTGCAATTTGATTCACACGACATACAACTTGGAGTTGCTGTATACCA	1203
Dp	1306	CAGGCTGTGTGCAATTTGATTCACACGACATACAACTTGGAGTTGCTGTATACCA	1365
Qy	1204	GTAATGAAATCATGCTTTAAATCAGAAAGAAAGCATTAATCATTCAAATTTAGCCAA	1263
Dp	1366	GTAATGAAATCATGCTTTAAATCAGAAAGAAAGCATTAATCATTCAAATTTAGCCAA	1425
Qy	1264	CTTCGAAATGACAACTTTTTCATATGTCTTTATGGCGGACCTCTTGAGTGTGATG	1323
Dp	1426	CTTCGAAATGACAACTTTTTCATATGTCTTTATGGCGGACCTCTTGAGTGTGATG	1485
Qy	1324	GCACATATATGACGAAGATACATCTCGAATCTTGATCTGGAACAGATTTGCTTTCCA	1383
Dp	1486	GCACATATATGACGAAGATACATCTCGAATCTTGATCTGGAACAGATTTGCTTTCCA	1545
Qy	1384	TGAGATTCGAAATGCTGTTAAATTTAAAGCCTTGATTTTACAAAGATGAGAAATTT	1443
Dp	1546	TGAGATTCGAAATGCTGTTAAATTTAAAGCCTTGATTTTACAAAGATGAGAAATTT	1605
Qy	1444	ATCAAGGAGAAAGGCAACCTGATACAAAGAAATGATTAATAATTTAGACAGTGGAACT	1503
Dp	1606	ATCAAGGAGAAAGGCAACCTGATACAAAGAAATGATTAATAATTTAGACAGTGGAACT	1665
Qy	1504	CGAATCATGGAATCCCTGACAGGCTCTGAGTCTACCTTATTTGATCTTAATAACA	1563
Dp	1666	CGAATCATGGAATCCCTGACAGGCTCTGAGTCTACCTTATTTGATCTTAATAACA	1725
Qy	1564	TCAAAAGACGAGAGAGACAACTGATCACTTGTGATCTGCTGTCTCTTAATCTTCT	1623
Dp	1726	TCAAAAGACGAGAGAGACAACTGATCACTTGTGATCTGCTGTCTCTTAATCTTCT	1785
Qy	1624	CTCCGAAATTAATCACTGACGACGATATGATCTTCTCTGTAAGATCTCCAAAGAA	1683
Dp	1786	CTCCGAAATTAATCACTGACGACGAGATATGATCTTCTCTGTAAGATCTCCAAAGAA	1845
Qy	1684	AAAGGTTCAACTACGCGGTGTAAATTTACTGCAAAATGCAGACACAAACCTCAGCC	1743
Dp	1846	AAAGGTTCAACTACGCGGTGTAAATTTACTGCAAAATGCAGACACAAACCTCAGCC	1905
Qy	1744	TTCCAGACCCAGAGACGCAATTAATCTACCTCTCTTCACTGTTTATAAAAAGTGAT	1803
Dp	1906	TTCCAGACCCAGAGACGCAATTAATCTACCTCTCTTCACTGTTTATAAAAAGTGAT	1965
Qy	1804	CGGCTAGGCTATCTCGGCTAAATAACACTTGTGAAGCCTTGCTGCTGACACCCAGAA	1863
Dp	1966	CGGCTAGGCTATCTCGGCTAAATAACACTTGTGAAGCCTTGCTGCTGACACCCAGAA	2025
Qy	1864	TTAGAACTATCATCTGAGACCTTTTCAGACACACCTGGAGAAATGATATGAATCAG	1923
Dp	2026	TTAGAACTATCATCTGAGACCTTTTCAGACACACCTGGAGAAATGATATGAATCAG	2085
Qy	1924	AAGACAGGCAATTTGACCAAAATTAATGATGTCTTCATGATGACATATGCANAAGTAAG	1983
Dp	2086	AAGACAGGCAATTTGACCAAAATTAATGATGTCTTCATGATGACATATGCANAAGTAAG	2145
Qy	1984	AATATAGACCTTAATTCAAATATCATTTGTAACAGCATACAAAGATCTTCTCATGCTGT	2043

QY	64	TTAACTGGGAAAGGTTCACTCGTSGATGAGAGTTGGGAGGTTTATCTCAAAAGAA	123
Db	364	TTAACTGGGAAAGGTTCACTCGTSGATGAGAGTTGGGAGGTTTATCTCAAAAGAA	423
QY	124	AAGGAACCTGGGGAAATCGATCTTATTTGCGACGATGACATGATGAGATGCTGTC	183
Db	424	AAGGAACCTGGGGAAATCGATCTTATTTGCGACGATGACATGATGAGATGCTGTC	483
QY	184	ACTTTCAGACTACAGAAAAACATAGAAATCAGTGCATGATTAATCTTTAACTTACTA	243
Db	484	ACTTTCAGACTACAGAAAAACATAGAAATCAGTGCATGATTAATCTTTAACTTACTA	543
QY	244	AAAGAATATGATACAGACAGCAACCAAGTATGATATGCTATGCTCAAGCTGGTGAAGATAT	303
Db	544	AAAGAATATGATACAGACAGCAACCAAGTATGATATGCTATGCTCAAGCTGGTGAAGATAT	603
QY	304	GAGTATGTTGGTGGACCTCTTCAGCAATTTGGAAAGACATGGAACCTATATATTTGACA	363
Db	604	GAGTATGTTGGTGGACCTCTTCAGCAATTTGGAAAGACATGGAACCTATATATTTGACA	663
QY	364	CAACCCAGCAGTTGATATCTACTGAAATTAATTCGATTCATGCTGCTTAAAAGTTCTGG	423
Db	664	CAACCCAGCAGTTGATATCTACTGAAATTAATTCGATTCATGCTGCTTAAAAGTTCTGG	723
QY	424	ATCACATTTTATTTAGCTAAAGGGGAAGTATTCACAAATGGAAGATGCTGGATTTCA	483
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QY	484	TTTCAGTTAAGCTATGTCGCTGAGCTATTTTATTAACCTCACCCCATGTTGGTC	543
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QY	544	AAAGAACATATAAAAACAGCTGTATATCCCATTAATGTCCTCAGACACCCAGGCGA	603
Db	844	AAAGAACATATAAAAACAGCTGTATATCCCATTAATGTCCTCAGACACCCAGGCGA	903
QY	604	GCTCAGAACAGAGATGCGACGATAGCAAAACAACATAGAAATGATACAAATATTGAA	663
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QY	664	GTCCTGTGAAAAGAACATGATTAATATATGATGAGGTGAAGAAATGTTTATTTCAAAAT	723
Db	964	GTCCTGTGAAAAGAACATGATTAATATATGATGAGGTGAAGAAATGTTTATTTCAAAAT	1023
QY	724	TTTATACCTTTTATGATTCCTCTTGACCTGTATACATCTAATGACCTCCAGAGTTGAA	783
Db	1024	TTTATACCTTTTATGATTCCTCTTGACCTGTATACATCTAATGACCTCCAGAGTTGAA	1083
QY	784	AATCTTCTTAAACGATACGAAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAATATTA	843
Db	1084	AATCTTCTTAAACGATACGAAAGAAATTTATCTTAAAAATAAAGATCTAGATGCAATATTA	1143
QY	844	TTTTTGAATCAGTATAAAAACCTTCAGACGATGCTATATAGACATTTTGGAAACAGAGAA	903
Db	1144	TTTTTGAATCAGTATAAAAACCTTCAGACGATGCTATATAGACATTTTGGAAACAGAGAA	1203
QY	904	ACACACGAAAAAGTAACTTATGATGAGAGGTGAATGTATATCTCTCACACACTCCAGTT	963
Db	1204	ACACACGAAAAAGTAACTTATGATGAGAGGTGAATGTATATCTCTCACACACTCCAGTT	1263
QY	964	AGAGACTGTTATGAACACTATCCAAACATTAATGATGATTTTAAATTCAGACAACTGATCAA	1023
Db	1264	AGAGACTGTTATGAACACTATCCAAACATTAATGATGATTTTAAATTCAGACAACTGATCAA	1323

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RESULT 3
 HOMOBLINNA 4839 bp mRNA PRI 05-MAY-1995
 LOCUS Homo sapiens retinoblastoma susceptibility protein (RBI) mRNA and
 DEFINITION mutations.
 ACCESSION I41870
 VERSION I41870.1 GI:793994
 KEYWORDS retinoblastoma protein; retinoblastoma susceptibility.
 SOURCE Homo sapiens CDNA to mRNA.
 ORGANISM Homo sapiens
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
 Eutheria; Primates; Catarrhini; Homiidae; Homo.
 REFERENCE 1 (sites)
 AUTHORS McGee,T.L., Yandell,D.W. and Dryja,T.P.
 TITLE Structure and partial genomic sequence of the human retinoblastoma
 susceptibility gene
 JOURNAL MEDLINE
 REFERENCE 2 (sites)
 AUTHORS Hogg,A., Onadim,Z., Baird,P.N. and Cowell,J.K.
 TITLE Detection of heterozygous mutations in the RBI gene in
 retinoblastoma patients using single-strand conformation
 polymorphism analysis and polymerase chain reaction sequencing
 JOURNAL MEDLINE
 REFERENCE 3 (sites)
 AUTHORS Hogg,A., Baird,P.N. and Cowell,J.K.
 TITLE Oncogenic point mutations in exon 20 of the RBI gene in families
 showing incomplete penetrance and mild expression of the
 retinoblastoma phenotype
 JOURNAL MEDLINE
 REFERENCE 4 (sites)
 AUTHORS Onadim,Z., Hogg,A. and Cowell,J.K.
 TITLE Mechanisms of oncogenesis in patients with familial retinoblastoma
 Br. J. Cancer 68 (5), 958-964 (1993)
 JOURNAL MEDLINE
 REFERENCE 5 (sites)
 AUTHORS Hogg,A., Bla.B., Onadim,Z. and Cowell,J.K.
 TITLE Molecular mechanisms of oncogenic mutations in tumors from patients
 with bilateral and unilateral retinoblastoma
 Proc. Natl. Acad. Sci. U.S.A. 90 (15), 7351-7355 (1993)
 JOURNAL MEDLINE
 REFERENCE 6 (sites)
 AUTHORS Kratke,R.A., Otterson,G.A., Hogg,A., Coxon,A.B., Gerads,J.,
 Cowell,J.K. and Kaye,F.J.

692 CTCACATGTTGCTCACAAGACATATATAACAGCTTATACCATTAAT 741
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DEFINITION Homo sapiens retinoblastoma susceptibility protein (RBI) mRNA and
mutations.
ACCESSION L41870
VERSION L41870.1 GI:793994
KEYWORDS retinoblastoma protein; retinoblastoma susceptibility.
SOURCE Homo sapiens
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
Eutheria; Primates; Catarrhini; Hominiidae; Homo.
REFERENCE 1 (sites)
McGee,T.L., Yandell,D.W. and Dryja,T.P.
Structure and partial genomic sequence of the human retinoblastoma
susceptibility gene
Gene 80 (1), 119-128 (1989)
JOURNAL 90006771
MEDLINE 2 (sites)
Hogg,A., Onadim,Z., Baird,P.N. and Cowell,J.K.
Detection of heterozygous mutations in the RBI gene in
retinoblastoma patients using single-strand conformation
polymorphism analysis and polymerase chain reaction sequencing
Oncogene 7 (7), 1445-1451 (1992)
JOURNAL 92319557
MEDLINE 3 (sites)
Onadim,Z., Hogg,A., Baird,P.N. and Cowell,J.K.
Oncogenic point mutations in exon 20 of the RBI gene in families
showing incomplete penetrance and mild expression of the
retinoblastoma phenotype
Proc. Natl. Acad. Sci. U.S.A. 89 (13), 6177-6181 (1992)
JOURNAL 92335261
MEDLINE 4 (sites)
Onadim,Z., Hogg,A. and Cowell,J.K.
Mechanisms of oncogenesis in patients with familial retinoblastoma
Br. J. Cancer 68 (5), 958-964 (1993)
JOURNAL 94031584
MEDLINE 5 (sites)
Hogg,A., Bla.B., Onadim,Z. and Cowell,J.K.

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 DEFINITION Homo sapiens retinoblastoma susceptibility protein (RB1) mRNA and mutations.
 ACCESSION L41870.1 GI:793994
 VERSION L41870.1 GI:793994
 KEYWORDS retinoblastoma protein; retinoblastoma susceptibility.
 SOURCE Homo sapiens cDNA to mRNA.
 ORGANISM Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.

REFERENCE
 1 (sites)
 McGee, T.C., Yandell, P.W. and Dryja, T.P.
 Structure and partial genomic sequence of the human retinoblastoma susceptibility gene
 JOURNAL Gene 80 (1), 119-128 (1989)
 MEDLINE 90066771
 REFERENCE
 2 (sites)
 Hogg, A., Onadim, Z., Baird, P.N. and Cowell, J.K.
 detection of heterozygous mutations in the RB1 gene in retinoblastoma patients using single-strand conformation polymorphism analysis and polymerase chain reaction sequencing
 JOURNAL Oncogene 7 (7), 1445-1451 (1992)
 MEDLINE 92319557
 REFERENCE
 3 (sites)
 Onadim, Z., Hogg, A., Baird, P.N. and Cowell, J.K.
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 JOURNAL Proc. Natl. Acad. Sci. U.S.A. 89 (13), 6177-6181 (1992)

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VERSION 181465.1 GI:3209762
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ORGANISM Unknown.
REFERENCE 1 (bases 1 to 2994)
AUTHORS Shepard,H,Michael and Wen,S,Fen.
TITLE Characterization of a novel anti-p110.sup.RB monoclonal antibody
JOURNAL Patent: US 5710255-A 2 20-JAN-1998.
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ncore software, version 4.5.
n Ltd.

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GenCore version 4.5
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OM nucleic - nucleic search, using sw model

Run on: February 13, 2000, 11:31:12 ; Search time 14294.3 Seconds
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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1	2343	100.0	4597	5	I05311	I05311 Sequence 1
2	2343	100.0	3232	5	I18496	I18496 Sequence 1
3	2343	100.0	3232	5	I18497	I18497 Sequence 2
4	2343	100.0	2994	5	I81465	I81465 Sequence 2
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10	1420	60.6	4580	5	A01444	A01444 H.sapiens D
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12	198	8.5	693	5	I09384	I09384 Sequence 17
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ALIGNMENTS

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DEFINITION Sequence 1 from Patent EP 0259031.
ACCESSION I05311
VERSION I05311.1 GI:591083
KEYWORDS
SOURCE
ORGANISM
Unkown.
REFERENCE 1 (bases 1 to 4597)
AUTHORS Dryja,T.P. and Friend,S.
PAT 02-DEC-1994

TITLE Human DNA in the diagnosis of retinoblastoma
 JOURNAL Patent: EP 0259031-A2 1 09-MAR-1988;
 FEATURES Location/Qualifiers
 Source 1..4597
 /organism="unknown"
 BASE COUNT 1489 a 842 c 812 g 1454 t
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DEFINITION Sequence 1 from patent US 5,496,731.
ACCESSION 118496
VERSION 118496.1 GI:1598851
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 3232)
AUTHORS Xu, H., Hu, S. and Benedict, M. F.
TITLES Broad-spectrum tumor suppressor genes, gene products and methods
for tumor suppressor gene therapy
JOURNAL Patent: US 5,496,731-A 1 05-MAR-1996;
FEATURES
Location/Qualifiers
1..3232
BASE COUNT 1086 a 597 c 566 g 983 t
ORIGIN

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Best Local Similarity 100.0%; Pred. No. 0;
Matches 2343; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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RESULT 3
LOCUS I18497 3332 bp DNA
DEFINITION Sequence 2 from patent US 5496731. PAT 07-OCT-1996

ACCESSION I18497
VERSION I18497.1 GI:1598852
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 3232)
AUTHORS Xu, H., Hu, S. and Benedict, W. F.
TITLE Broad-spectrum tumor suppressor genes, gene products and methods
for tumor suppressor gene therapy
JOURNAL Patent: US 5496731 A 2 05 MAR 1996;
FEATURES
source Location/Qualifiers
BASE COUNT 983 a 566 c 597 g 1086 t
ORIGIN
Query Match 100.0%; Score 2343; DB 5; Length 3232;
Best Local Similarity 100.0%; Pred. No. 0;
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seq_documentation_block:
LOCUS 118496 3232 bp DNA PAT 07-OCT-1996
DEFINITION Sequence 1 from patent US 5496731.
ACCESSION 118496
VERSION 118496.1 GI:1598851
KEYWORDS
SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 3232)
AUTHORS Xu,H., Hu,S. and Benedict,W.F.
TITLE Broad-spectrum tumor suppressor genes, gene products and methods
for tumor suppressor gene therapy
JOURNAL Patent: US 5496731-A 1 05-MAR-1996;
FEATURES
source 1. 3232
Location/Qualifiers
BASE COUNT 1086 a 597 c 566 g 983 t
ORIGIN

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seq_name: gb_pat:118497
seq_documentation_block: 3232 bp DNA PAT 07-OCT-1996
LOCUS 118497
DEFINITION Sequence 2 from patent US 5496731.
ACCESSION 118497
VERSION 118497.1 GI:1598852
KEYWORDS
SOURCE
ORGANISM
REFERENCE 1 (bases 1 to 3232)
AUTHORS Xu, H., Hu, S., and Benedict, W.F.
TITLE Broad-spectrum tumor suppressor genes, gene products and methods
for tumor suppressor gene therapy
JOURNAL Patent: US 5496731-A 2 05-MAR-1996;
FEATURES
location/Qualifiers
1..3232
BASE COUNT 983 a 566 c 597 g 1086 t
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SOURCE Unknown.
ORGANISM Unknown.
REFERENCE 1 (bases 1 to 4597)
AUTHORS Dryja, J.N., and Friend, S.
TITLE Human DNA. A diagnosis of retinoblastoma
JOURNAL Patent: EP 0259031-A1 09-MAR-1988.
FEATURES
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VERSION M33647.1 GI:190945
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REFERENCE
1 (bases 1 to 4600)
Friend,S.H., Horowitz,J.M., Gerber,M.R., Wang,X.F., Bogenmann,E.,
Ll.F.P. and Weinberg,R.A.
Deletions of a DNA sequence in retinoblastomas and mesenchymal
tumors: organization of the sequence and its encoded protein
[published erratum appears in Proc Natl Acad Sci U S A 1988
Apr;85(7):2234]
Proc. Natl. Acad. Sci. U.S.A. 84 (24), 9059-9063 (1987)
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VERSION M28419
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retinoblastoma protein; retinoblastoma susceptibility protein.
SOURCE Homo sapiens retinoblastoma cDNA to mRNA.
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia;
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1 (bases 1 to 2994)
Lee, W.H., Shew, J.Y., Hong, F.D., Sery, T.W., Donoso, L.A., Young, L.J.,
Bookstein, R. and Lee, E.Y.
The retinoblastoma susceptibility gene encodes a nuclear
phosphoprotein associated with DNA binding activity
Nature 329 (6140), 642-645 (1987)
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